Wildfire Mitigation in Itasca State Park

Full Mitigation Best Practice Story

State-wide, Minnesota

The State of Minnesota - A tornado and several windstorms caused severe damage in Itasca State Park, located in northwestern Minnesota, and has a half a million visitors each year. The storm damaged and blew down numerous pine trees throughout the park. As the downed, wet trees dried, the potential for a catastrophic wildfire greatly increased in the park. The bark beetle exists in all pine forests, but usually does not present a threat to a healthy forest. However, the storm created the perfect breeding environment for the bark beetle. Any significant increase in the beetle population could have caused the damaged or healthy trees to become infested, die, and increase the threat of wildfire.

The subgrantee, the Minnesota Department of Natural Resources (DNR), has been conducting a bark beetle control project in the park, thereby reducing accumulation of dead tree fuel. In May of 1996, the DNR installed four adult bark beetle traps per acre in the affected areas. The traps have been and will continue to be monitored and maintained weekly. The project may take up to 5 years to sufficiently reduce the bark beetle population to a safe level for the pine forest in the park. Since the project is ongoing, the State legislature has provided additional funding to continue the project beyond the scope of the FEMA-approved project.

The loss of the old growth pine ecosystem would cause significant changes to the overall ecosystem including lichens, trees and shrubs, the herb layer, soil moisture, and use by mammals, insects, birds, amphibians, and reptiles. If a loss of pines occurred, there would be no way to regenerate or replace the existing old growth ecosystem.

The catastrophic loss of the pine ecosystem due to a bark beetle outbreak would completely change the appearance of the park and would detract from the visitor experience. In addition to the bark beetle control, the park has created a new interpretive trail to point out the damage caused by the storm and educate its visitors on the storm's effect. The interpretive trail is appropriately named the "Blowdown Trail."

Activity/Project Location	
Geographical Area:	**State-wide**
FEMA Region:	**Region V**
State:	**Minnesota**

Key Activity/Project Information

Sector:	**Public**
Hazard Type:	**Fire**
Activity/Project Type:	**Vegetation Management**
Activity/Project Start Date:	**05/1996**
Activity/Project End Date:	**Ongoing**
Funding Source:	**Hazard Mitigation Grant Program (HMGP); State sources**
Funding Recipient:	**State Government**
Funding Recipient Name:	**Department of Natural Resources**

Activity/Project Economic Analysis

Cost:	**$162,390.00 (Actual)**

Activity/Project Disaster Information

Mitigation Resulted From Federal Disaster?	**Unknown**
Value Tested By Disaster?	**No**
Repetitive Loss Property?	**Unknown**

Reference URLs

Reference URL 1:	**http://www.tornadoproject.com/**
Reference URL 2:	**http://www.epcra.state.mn.us/**

Main Points

- Conducted a bark beetle control project in the park.
- Installed four adult bark beetle traps per acre in the affected areas.
- The catastrophic loss of the pine ecosystem due to a bark beetle outbreak would completely change the appearance of the park and would detract from the visitor experience.